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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,363	01/22/2004	Toshiaki Takahashi	50195-413	3424
<div>7590 07/02/2007 McDERMOTT, WILL & EMERY 600 13th Street, N.W. Washington, DC 20005-3096</div>			<div>EXAMINER SALOMON, PHENUEL S</div>	
			<div>ART UNIT 2178</div>	<div>PAPER NUMBER</div>
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/761,363	Applicant(s) TAKAHASHI ET AL.	
	Examiner Phenuel S. Salomon	Art Unit 2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/2006 and 1/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the original filing of January 22, 2004. Claims 1-18 are pending and have been considered below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term a "limit amount of steering wheel" in claim 7 is vague and indefinite due to the fact that a "limit amount" can be any number. The term is indefinite because the specification does not clearly redefine the term.

4. Claims 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term a "learning speed" in claim 14-17 is vague and it's not clearly pointed out how that apply to a menu item. The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 9-10, 12-13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto (US 5,784,059) in view of Damiani (US 6,667,726 B1).

Claim 1: Morimoto discloses a display system for a vehicle, which presents to a user a plurality of menu items respectively corresponding to functions of devices/equipment mounted on the vehicle by displaying an operation menu including some of the menu items on a screen of a display of the system, and allows the user to select one of the displayed menu items to perform the function thereof, the system comprising:

an input unit to be operated by the user (col. 3, lines 5-8);

a storage unit which stores hierarchically structured first menu information, the first menu information comprising a plurality of the operation menus respectively registered in a plurality of tiers of the first menu information (col. 3, lines 57-67); and

a display control unit which determines the operation menu to be displayed on the screen, using the first menu information or a second menu information having a limited number of tiers as compared with the first menu information (col. 3, lines 54-67), but does not explicitly disclose based upon the operatability of the user judged by the operatability judgment unit and an operatability judgment unit which judges user's operatability of the input unit. However, Damiani discloses

a processing unit that enables different sets of driver-performable operations (col. 3, lines 19-24),

a processing unit that receives signal determining the state of the vehicle (col. 3, lines 14-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include these features in Morimoto. One would have been motivated to do so in order to limit the driver choice in term of features, thus forcing the driver to only focus on the road.

Claim 2: Morimoto discloses a display system as in claim 1 above, further comprising:

the storage unit stores the first and second menu information (col. 3, lines 57-59), but does not explicitly disclose

a driving load determination unit which determines a driving load on the user who drives the vehicle , wherein

the display control unit determines, based upon the determined driving load and the operatability of the user, a timing when to shift from a process of displaying the operation menu using the first menu information to a process of displaying the operation menu using the second menu information. However, Damiani discloses

a processing unit that receives signal determining the state of the vehicle (col. 3, lines 14-18), wherein

a real-time changing graphic representations shown on display units.. (col. 3, lines 19-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include these features in Morimoto. One would have been motivated to do so in order to improve safety while vehicle being operated and thus, the driver can easily and promptly recognize and cope with any abnormality regarding conditions being displayed.

Claim 3: Morimoto discloses a display system as in claim 2 above, and further discloses the operatability judgment unit (learning means) monitors operation time of the user to judge the operatability of the user, and changes the number of tiers of the respective first and second menu information, based on the operatability (col. 3, lines 30-38).

Claim 4: Morimoto discloses a display system as in claim 2 above, but does not explicitly disclose the display control unit allows a continuous operation of the input unit if the number of remaining operation steps is less than a predetermined step number at a point where it is judged, based upon the driving load, that the process of displaying the operation menu using the first menu information will be shifted to the process of displaying the operation menu using the second menu information, while the input unit is operated. However, Damiani discloses a processing unit that determines whether the speed of the vehicle is below a predetermined

threshold value..(col. 5, lines 54-67 and col. 6, lines 1-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include these features in Morimoto. One would have been motivated to do so in order to let the driver continue enjoying the available features while the vehicle is being operated properly.

Claim 5: Morimoto discloses a display system as in claim 4 above, and Morimoto further discloses the number of tiers of the second menu information is increased when the user frequently carries out the continuous operation of the input unit (col. 4, lines 53-63).

Claim 9: Morimoto and Damiani disclose a display system as in claim 1 above, wherein
the first menu information is a full menu information that comprises a selection operation menu including a plurality of selection menu items for selecting functions of the vehicle-mounted devices, registered to a plurality of tiers; and an execution operation menu including a plurality of execution menu items for executing functions of the vehicle-mounted devices registered in a tier lower than the plurality of the tiers of the selection operation menu (col. 3, lines 54-66),

the second menu information is a modified menu information that is produced by modifying the full menu information (col. 3, lines 61-66), and

the display control unit comprises a menu production unit that produces the modified menu information, wherein the display control unit displays the operation menu by using the full menu information or the modified menu information (col. 4, lines 5-7) and (col. 3, lines 61-65), However, Damiani further discloses a processing unit that receives signal determining the state of the vehicle (col. 3, lines 14-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include driving load

estimation in Morimoto. One would have been motivated to do so in order to limit the driver choice in term of features, thus forcing the driver to only focus on the road.

Claim 10: Morimoto and Damiani disclose a display system as in claim 9 above, Morimoto further discloses the menu production unit produces the modified menu information so that the menu item that is selected more frequently is displayed with higher priority, based upon an operation history information of each of the selection menu items and the execution menu items (col. 14, lines 51-67).

Claim 12: Morimoto and Damiani disclose a display system as in claim 9 above, Morimoto further discloses the menu production unit subdivides the selection menu item that is used frequently and produces the modified menu information comprising the subdivided selection menu item transferred to a upper tier (col. 14, lines 51-57) and (col. 3, lines 61-66).

Claim 13: Morimoto and Damiani disclose a display system as in claim 9 above, Morimoto further discloses the menu production unit produces the modified menu information comprising a selection integrated menu item that integrates a plurality of different menu items (col. 3, lines 61-66).

Claim 18: Morimoto discloses an information display system for a vehicle comprising:
an input unit that selects the menu items of the operation menu displayed (col. 3, lines 5-8); and
a storage unit that stores a first menu information registering the operation menu to a plurality of tiers (col. 3, lines 57-67);and

a display determination unit that determines the operation menu to be displayed by selecting the first menu information or the second menu information a number of tiers of which is limited compared with the first menu information (col. 3, lines 54-67), but does not explicitly disclose corresponding to the operatability of the user; and

a controller that displays the selected menu items on the display device, the controller comprising:

an operatability judgment unit that judges an operatability of a user with respect to the input unit;

a display device that displays an operation menu, the operation menu including a plurality of menu items corresponding to a function of a vehicle-mounted device; However, Damiani discloses a processing unit that enables different sets of driver-performable operations (col. 3, lines 19-24), a processing unit that receives signal determining the state of the vehicle (col. 3, lines 14-18) and a display unit related to vehicle mounted-device (col. 3, lines 59-67) . Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include these features in Morimoto. One would have been motivated to do so in order to limit the driver choice in term of features, thus forcing the driver to only focus on the road.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto (US 5,784,059) in view of Damiani (US 6,667,726 B1) and in further view of Oishi (US 4,058,796).

Claim 6: Morimoto and Damiani disclose a display system as in claim 4 above, but do not explicitly disclose an amount of steering wheel operation is recorded while the operation menu using the second menu information is displayed, and the number of tiers of the second menu

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information is decreased in a case where the amount of steering wheel operation is large. However, Oishi discloses a steering sensor for detecting the operating conditions of the steering wheel (col. 2, lines 3-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include steering wheel operation in Morimoto. One would have been motivated to do so in order to prevent the driver from enjoying the available features while the vehicle is being operated erratically.

8. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto (US 5,784,059) in view of Damiani (US 6,667,726 B1) and in further view of Entenmann (US 6,957,142 B2).

Claim 8: Morimoto and Damiani disclose a display system as in claim 2 above, but do not explicitly disclose the operation menu using the second menu information is displayed while an amount of steering wheel operation is small, and when the amount thereof is increased before an operation step of the operation menu ends, the display control unit allows to continue only one step operation in the event the number of remaining operation steps is one. However, Entenmann discloses an imminent driving task as predicted by the driver-loading prediction unit that is not above the threshold (col. 7, lines 59-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include this feature in Morimoto. One would have been motivated to do so in order to let the driver acquire all the necessary information and a reminder about the vehicle is being operated erratically.

Claim 11: Morimoto and Damiani disclose a display system as in claim 10 above, but do not explicitly disclose the menu production unit produces operation history information for each

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menu item divided by a weekday, a holiday or an hour belt, thereby to produce the modified menu information such that the menu item that is selected more frequently corresponding to the weekday, the holiday or the hour belt is displayed with higher priority. However, Entenmann discloses an acknowledgement dependent on the frequency of the occurrence of the associated driving style (col. 8, lines4-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include operation history information in Morimoto. One would have been motivated to do so in order to help the driver quickly access the requested menu.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Ito (US 4,988,996) discloses display system.
- b. Toffolo et al. (US 5,757,268) discloses prioritization of vehicle display features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phenuel S. Salomon whose telephone number is (571) 270-1699. The examiner can normally be reached on Mon-Fri 7:00 A.M. to 4:00 P.M.(Alternate Friday Off) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272 4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3800.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSS

P.S.S.
6/15/2007


Stephen Hong

Supervisory Primary Examiner